



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, D.C. 20350

8 pgs  
IN REPLY REFER TO

OPNAVINST 4700.30  
Op-371D  
9 NOV 77

OPNAV INSTRUCTION 4700.30

From: Chief of Naval Operations

Subj: Trials, acceptance, commissioning, fitting out, test and evaluation, shakedown and post-shakedown availability of guided missile frigate OLIVER HAZARD PERRY (FFG-7); responsibilities for

Ref: (a) OPNAVINST 4700.8F of 24 Jun 1972  
(b) INSURVINST 9080.2F of 9 Dec 1974

1. Purpose. This instruction augments reference (a). It amplifies responsibilities for the introduction of the lead ship of the FFG-7 Class to the Fleet and is promulgated to facilitate orderly and timely planning by the many commands and activities associated with its introduction.

2. Schedule and Progress. The current schedule for FFG-7 is provided herein for convenience. Schedule changes will be promulgated and monitored in the Naval Sea Systems Command Monthly Progress Reports (NAVSEA 250-574).

SHIP	OLIVER HAZARD PERRY
HULL NO.	FFG-7
FY PROGRAM	73
SHIPBUILDER	BATH IRON WORKS CORP.
BUILDER SEA TRIALS (MOCK INSURV)	OCTOBER 1977
ACCEPTANCE TRIALS	NOVEMBER 1977
ESTIMATED DELIVERY DATE	3 DECEMBER 1977
CONTRACT DELIVERY DATE	31 DECEMBER 1977
COMPLETE FITTING OUT AVAILABILITY (FOA)	31 MARCH 1978*
FINAL CONTRACT TRIALS (FCT)	JULY 1978*

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END GUARANTEE PERIOD	AUGUST 1978*
COMMENCE POST SHAKEDOWN AVAILABILITY (PSA)	NOVEMBER 1978*
COMPLETE PSA	JANUARY 1979*
SCN FUNDING LIMITING DATE	28 FEBRUARY 1979*

\*DATES WILL ADVANCE ON DAY FOR DAY BASIS BY THE SAME AMOUNT THAT DELIVERY IS EARLIER THAN 31 DECEMBER 1977

3. Scope. This instruction applies to FFG-7 through completion of the Fitting Out Availability (FOA) and provides additional guidance through completion of the Post Shakedown Availability (PSA).

4. Background. FFG-7 is the lead ship of a new class of Guided Missile Frigates which is now entering series production. Seventeen follow ships are under contract: Bath Iron Works (8 ships); Todd Los Angeles (6 ships); and Todd Seattle (3 ships) with deliveries commencing in 1980. Additionally, two FFGs are under contract at Todd, Seattle for the Royal Australian Navy. Contracts for a total of at least eight more follow ships will be awarded in FY 78 and further follow ships are planned for a program total of about 70 ships. There are several unique aspects of the program which impact introduction of the lead ship of the FFG-7 Class to the Fleet:

a. Standardization is to be emphasized to a greater degree than in previous classes of surface combatants. It is of primary importance that significant design deficiencies in the lead ship be identified promptly to permit orderly and proper corrective action in the follow ships. Although extensive IOT&E has been conducted satisfactorily at two Land Based Test Sites and during OPEVAL of various FFG-7 subsystems, further T&E is appropriate in the ship-board environment. Accordingly, an extensive test and evaluation program is scheduled for FFG-7 following commissioning. This program is outlined in the Guided Missile Frigate Test and Evaluation Master Plan (TEMP) No. 179 dated 17 September 1976 and includes a three-week period dedicated to operational tests and evaluation by COMOPTEVFOR.

b. The FFG-7 was conceived and designed to require fewer officers and men to effectively operate and maintain the ship than were required in previous surface combatants

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of similar size, to achieve major savings in ship manpower requirements and life cycle costs. Accordingly, special attention has been given to the development of the training plans set forth in the FFG-7 Navy Training Plan (NTP S30-7409A). A nucleus/balance crew concept, as set forth in the Crew Phasing and Planning Annex to the training plan, will be used for the initial manning and training of FFG-7 personnel.

c. Similarly, FFG-7 has been designed to minimize organizational, intermediate, and depot maintenance requirements. A fuller use of rotatable pools for replacement units and components is central to the success of this effort. Further, a concept of progressive overhaul is being implemented to increase operational availability of the ships throughout their service life.

5. Definitions and Terms. These shall be in accordance with reference (a), except for additions or modifications below:

a. Builder's Machinery Sea Trials (BMST). Trials conducted underway by the shipbuilder for the purpose of acquainting the contractor with the characteristics of the FFG-7 propulsion system and to test and tune the plant under seagoing conditions in order to minimize the possibility of delays during Builder's Sea Trials.

b. Builder's Sea Trials (BST). Trials conducted underway by the shipbuilder for the purpose of demonstrating to the Navy (the Supervisor of Shipbuilding) that Contractor requirements have been met and to assure the Supervisor that FFG-7 is ready for acceptance trials. During the BST, the Supervisor will conduct a mock board of Inspection and Survey (INSURV) in accordance with reference (b).

c. Acceptance Trials (AT). Trials and material inspections underway by the Board of Inspection and Survey (INSURV) in accordance with reference (b) to determine suitability for preliminary acceptance of FFG-7 by the Navy. AT shall be conducted approximately 28 days prior to delivery in order to allow for correction of deficiencies.

d. Delivery. The actual delivery to and preliminary acceptance by the Navy of FFG-7 in accordance with the terms of the Contract. FFG-7, when delivered, shall be fully outfitted with supply support material as defined by approved allowance lists.

e. Fitting Out Availability (FOA)

(1) In recognition of the lead ship status of FFG-7 and the significant differences in propulsion and combat system from those of previous surface combatants, the FOA will be three months in duration, starting with the date of delivery and conducted at Bath Iron Works.

(2) Industrial work during the FOA shall be generally limited to the completion of all deficiencies (trial items), determined by INSURV during AT and not corrected prior to delivery, that are practical of achievement within the FOA, and deferred Class Changes previously authorized by NAVSEA.

(3) The primary objective, during FOA, is to achieve a level of material readiness and crew training and qualification which will permit the confident conduct of special tests and trials and shakedown training.

f. Special Test and Trials Period. This is the period between completion of FOA and commencement of the PSA. Its prime purpose is to accomplish the higher level integration testing of the combat and propulsion systems, including testing of the associated fire control, command and control, damage control and engineering support systems. Additionally, shakedown training will be conducted, and three weeks will be devoted to operational test and evaluation by COMOPTEVFOR.

g. Final Contract Trials (FCT). Trials and material inspection conducted underway by INSURV prior to expiration of the guarantee period in order to demonstrate to INSURV full compliance with contract requirements. Successful completion of FCT is prerequisite to final acceptance by the Navy.

6. Responsibilities. These shall be in accordance with reference (a), except as augmented below:

a. Chief of Naval Material (NAVSEA SHAPM (PMS399))

(1) Prepare the schedule of events for the Special Test and Trials Period, in close liaison with CINCLANTFLT, to ensure proper planning for services and other related at-sea operations.

(2) Request services for the special test and trials period and FCT in accordance with the procedures of paragraph 6e of reference (a).

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(3) Exercise technical control of all tests related to the special test and trials period, to ensure a completed ship, including combat and propulsion systems prior to the FCT and the achievement of the objectives set forth in the TEMP.

(4) Provide such technical assistance to INSURV as may be requested for the conduct of the FCT.

b. Fleet Commanders in Chief (CINCLANTFLT)

(1) Provide services as requested for trials, and for the special test and trials period. (See reference (a)).

(2) Provide such assistance during the special test and trials period as may be requested by the Chief of Naval Material (through the Ship Acquisition Project Manager (SHAPM) in NAVSEA).

(3) Provide funds for those replacement parts which are normally OPTAR funded except for items which are under guarantee or warranty during the special test and trials period.

(4) Ensure that information is provided by the commanding officer, as requested by Commander, Naval Sea Systems Command, in his letter of final action on Acceptance and Final Contract Trial items.

7. Procedures for Acceptance Trials, Delivery, Fitting Out, Commissioning, Special Test and Trials Period, FCT. Procedures shall be in accordance with reference (a), except as modified below:

a. Completion of FFG-7 will be accomplished utilizing the concept that requires the ship to be completed by the shipbuilder to a weapons readiness level defined by the contract specifications, delivered to naval custody for FOA, a Special Test and Trials Period, Final Contract Trials, and PSA prior to reporting to the active fleet for duty.

b. Prior to delivery and commissioning, Acceptance Trials by the Board of Inspection and Survey will be scheduled. The scope of the inspection by the Board of Inspection and Survey shall be as defined by the terms of the contract and the specifications therein, with full realization that final testing and checkout of the ship and combat systems will be completed prior to the FCT. Those

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installations which will not be ready for AT will be identified to the Chief of Naval Operations and INSURV, in accordance with normal procedures of reference (a). The trial will be followed by the usual trial correction period, in accordance with reference (a). Delivery of the ship will be as recommended by the senior trial board member and authorized by the Chief of Naval Operations.

c. The ship will be placed "In Commission" approximately ten days after delivery.

d. The special test and trials period is planned for a period of approximately six months following FOA. The ship will operate from a test site as arranged by the Chief of Naval Material (SHAPM) through liaison with appropriate commanders. In addition to the accomplishment of RFS and other routine ship trials and tests, as delineated in paragraph 12 of reference (a), the following will be accomplished:

(1) Integrated system level tests for the combat system (FCS, launching systems, Command and Control, AN/SPS-49, communications) including Ship Integration Testing (SIT).

(2) Technical requirements for Combat System Ship Qualification Trials (CSSQT).

(3) Successful SM-1 missile, HARPOON, MK 32 torpedo launching and gun firings.

(4) Crew Training.

(5) Radiation patterns, Hazards of Electronic Radiation to Ordnance (HERO) tests, Radiation Hazards to Personnel (RADHAZ) tests, and deperming.

e. It is essential to the successful completion of the special test and trials period that the Chief of Naval Material (SHAPM) work closely with CINCLANTFLT regarding services and ship scheduling. Accordingly, when ship delivery occurs, the following special procedures will apply.

(1) The commanding officer will report to the type commander for administrative support and operational control during the at-sea phases of the FOA, Special Test and Trials Period and FCT.

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(2) The Chief of Naval Material (SHAPM) will exercise technical control of initial crew training and qualification and of all tests related to the Special Test and Trials Period, to ensure a completed ship for the FCT.

(3) The commanding officer will accept the combat system operational programs, subject to successful completion of at-sea testing.

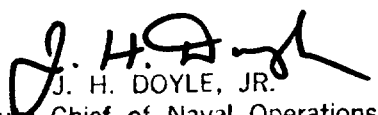
(4) The appropriate type commander or his designated representative will act as presenting authority for the FCT.

(5) Additional underway training and other uncompleted routine trials and tests will be scheduled by the cognizant fleet commander in chief, as required, after the ship has reported for duty.

f. The Special Test and Trials Period will be altered as necessary to allow for the FCT to be conducted prior to the end of the guarantee period and may extend to the beginning of the Post-Shakedown Availability (PSA).

g. Upon completion of PSA, the commanding officer will report by message to the cognizant fleet commander in chief for duty.

h. The Preliminary Ships Manning Document will be validated by Navy Manpower and Material Analysis Center, Atlantic.

  
J. H. DOYLE, JR.  
Deputy Chief of Naval Operations  
(Surface Warfare)

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